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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/788,832

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Kyung-Ju Choi

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7344

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7590

10/02/2007

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EXAMINER

MATZEK, MATTHEW D

ART UNIT

PAPER NUMBER

1771

MAIL DATE

DELIVERY MODE

10/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/788,832

Applicant(s)

CHOI, KYUNG-JU

Examiner

Matthew D. Matzek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-29 and 33-44 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 22-29 and 33-44 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Response to Amendment

1. The amendment dated 2/20/2007 has been fully considered and entered into the Record. The amended claims contain no new matter. Claims 22-29 and 33-44 are currently active and claims 1-21 and 30-32 have been canceled.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 22-29 and 33-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 22 recites a first layered mat portion of selected first varied fiber size distribution and varied permeability and a second layered mat portion of selected second varied fiber size distribution and varied permeability. It is unclear to Examiner as to whether the fiber sizes vary within each mat portion; they vary between the two portions or if the use of the term “varied” is to mean that fiber size is not to be specific. Examiner has taken the position that the fiber size is to vary between the mat portions. Examiner will take the position that the permeability varies between the mat portions. Claim 33 recites a first layered mat portion of selected first varied fiber size distribution and varied porosity and a second layered mat portion of selected second varied fiber size distribution and varied porosity. It is unclear to Examiner as to whether the fiber sizes vary within each mat portion; they vary between the two portions or if the use of the term “varied” is to mean that fiber size is not to be specific. Examiner has taken the position that the fiber size is to vary between the mat portions. Examiner will take the position that the porosity varies between the mat portions.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 22-24, 26, 33, 38, 39, 41, 42 and 44 are rejected under 35 U.S.C. 102(c) as being anticipated by Healey (US 2002/0187701) for reason set forth in the Office Actions dated 8/11/2005 and 2/7/2006. The new claim limitations of varied fiber sizes, permeability and porosity are provided for in Healey. In particular, Healey teaches fiber size distributions within the claimed ranges [0021 and 0028], the first outer layer and the filter layer would necessarily possess differing permeabilities and porosities in order for the filter layer to separate out particles that are not captured in the first outer layer [0027-0029].

4. Claims 22-24, 26-29, 33-39, 41, 42 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Airflo (EP 0 960 645 A2) for reason set forth in the Office Actions dated 8/11/2005 and 2/7/2006.

5. Claims 22-27, 33, 34, 36, 38-41 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Healey (WO 01/32292 A1) for reason set forth in the Office Actions dated 8/11/2005 and 2/7/2006.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 25, 40 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Airflo (EP 0 960 645 A2) in view of Healey (WO 01/32292 A1) for reasons set forth in the Office Actions dated 8/11/2005 and 2/7/2006.

Response to Arguments

7. Applicant's arguments filed 2/20/2007 have been fully considered but they are not persuasive.
8. Applicant argues that Healey (US 2002/0187701) and (WO 01/32292 A1) fails to teach or suggest having a varied fiber size distribution or varied permeability within a single layer. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a varied fiber size distribution or varied permeability within a single layer) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As Examiner addressed *supra*, it is unclear as to whether the fiber sizes vary within each mat portion, they vary between the two portions or if the use of the term "varied" is to mean that fiber size is not to be specific. Examiner has taken the position that the fiber size is to vary between the mat portions. Examiner will take the position that the permeability varies between the mat portions. If Applicant is intending to claim a first mat portion comprising fibers of differing lengths and permeabilities within said first mat portion, then the instant claims should be amended to reflect such intent provided there is support for such an amendment in the Specification.
9. Applicant argues that Healey fails to teach or suggest attenuating layers from spaced orifice sources directly to separate, spaced collector sources providing the varied fiber size distribution and varied permeability within each layer as claimed. Healey clearly sets forth the use of attenuating the fiber layers in paragraph 34 of the applied PG Pub and with regards to the

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use of separate, spaced collector sources Applicant has failed to demonstrate how the claimed process leads to a materially and structurally different article than that which has been applied in the rejection.

10. Applicant argues that EP 0960645 fails to teach or suggest an article with varied permeability or a varied porosity within a single layer. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a varied fiber size distribution or varied permeability within a single layer) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Again, it is unclear as to whether the fiber sizes vary within each mat portion, they vary between the two portions or if the use of the term "varied" is to mean that fiber size is not to be specific. Examiner has taken the position that the fiber size is to vary between the mat portions. Examiner will take the position that the permeability varies between the mat portions. If Applicant is intending to claim a first mat portion comprising fibers of differing lengths and permeabilities within said first mat portion, then the instant claims should be amended to reflect such intent provided there is support for such an amendment in the Specification.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is 571.272.2423. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571.272.1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew D Matzek/
Examiner, Art Unit 1771

/Terrel Morris/
Terrel Morris
Supervisory Patent Examiner
Group Art Unit 1771